

Curriculum vitae with track record (for researchers)

Role in the project Project manager ☐ Project participant ☒

Personal information

First name, Surname:	Carlos Bernad		
Date of birth:	26/03/1973	Sex:	M
Nationality:	Spanish		
Researcher unique identifier(s)	ORCID 0000-0002-4235-0776		

Education

Year	Faculty/department - University/institution - Country
2004	Diploma of Advanced Studies in Automotive New Technologies Programme (DEA – pre-Bologna PhD stage). University of Zaragoza – Spain
2001	Postgraduate Research Training in Computational Mechanics. University of Zaragoza – Spain
1998	MEng in Mechanical Engineering. University of Zaragoza – Spain

Positions - current and previous

(Academic sector/research institutes/industrial sector/public sector/other)

Year	Job title – Employer - Country
2025-	Senior Scientist Darwin Group – NORCE - Norway
2018-2025	Project Manager Mechatronics & Robotics - Institute of Technology of Aragon – Spain
2016-2017	Mechatronics Technology Coordinator – Institute of Technology of Aragon – Spain
2012–2015	Researcher Industrial Systems Division – Institute of Technology of Aragon – Spain
2008-2011	Strategic Program Manager – Institute of Technology of Aragon – Spain
2006-2007	Head of CAE-NVH Department – Institute of Technology of Aragon – Spain
2004-2005	Project Manager – Institute of Technology of Aragon – Spain
2001-2003	Head of Acoustics and Vibrations Section – Institute of Technology of Aragon – Spain
1998-2000	Project Engineer – Institute of Technology of Aragon – Spain

Project management experience

(Academic sector/research institutes/industrial sector/public sector/other. Please list the most relevant.)

Year	Project owner - Project - Role - Funder
2024–2028	NORCE Norwegian Research Centre – iBot4CRMs – WP Leader: Pilot Specifications and Trials; Researcher: Lifelong Learning of CRMs and Self-Adaptive Optimization – Horizon Europe (GA No. 101189783)
2022–2025	ACCIONA Construcción S.A. – BEEYONDERS – WP Leader: Autonomous & Teleoperated Ground and Aerial Vehicles – Horizon Europe (GA No. 101058548)
2022–2026	Instituto Tecnológico de Aragón (ITA) – INPERSO – Project Coordinator; Researcher: Robotic 3D Printing for Façade Renovation – Horizon Europe (GA No. 101069820)
2019–2021	Technical University of Ilmenau (TUIL) – XILforEV – WP Leader: High-Confidence EV Models and Systems Controllers; Researcher: Hybrid Physics-Machine Learning Models – Horizon 2020 (GA No. 824333)
2013-2019	TRW Automotive – Integrated Brake Control Design & Development – Project Manager & Technical Coordinator ITA, Smart Control & System Simulation – TRW Automotive (private contract)
2013-2015	Caucho Metal Productos II, S.L. – ARTECOIN: Design and Development of New Control and Inspection Processes for Elastic Joints Aimed at Zero Defects – Project Manager & Technical Coordinator ITA – INNPACTO 2012 (Spanish Ministry of Economy and Competitiveness)

Other relevant professional experiences

(E.g. institutional responsibilities, organisation of scientific meetings, membership in academic societies, review boards, advisory boards, committees, major research or innovation collaborations, other commissions of trust in public or private sector)

Year	Description - Role
2013-	Certified as Project Management Professional (PMP) [®] by the Project Management Institute
2015-2017	Scientific evaluator for European Quality Assurance (EQA) – External reviewer of R&D projects and technological audits
2011-2017	Peer reviewer for the journal <i>Packaging Technology and Science</i> – Wiley
2014	Member of the Scientific Committee del 19th IAPRI World Conference on Packaging

Track record

1. Cáceres-Naranjo, D., Bernad, C., Calvo, S., Royo, J.M. (2023). Assessment and modelling of corrugated board dynamic properties under impact loads. Application to edge crush disposition. *Results in Engineering*, June 2023. <https://doi.org/10.1016/j.rineng.2023.101072>
2. Alfonso, J., Rodríguez, J.M., Bernad, C., Beliautso, V., Ivanov, V., Castellanos, J.A. (2022). Geographically distributed real-time co-simulation of electric vehicle. *Proceedings of the 2022

International Conference on Control, Decision and Information Technologies (CoDIT)*.

<https://doi.org/10.1109/CoDIT55151.2022.9804062>

3. Ivanov, V., Augsburg, K., Bernad, C., Dhaens, M., Dutre, M., Gramstat, S., Van Kelecom, N. (2019). Connected and Shared X-in-the-Loop Technologies for Electric Vehicle Design. *World Electric Vehicle Journal*, 10(4), 83. <https://doi.org/10.3390/wevj10040083>
4. Royo, J.M., Bernad, C., Cokonaj, V., Ebri A.C. (2012). Wave Propagation Correlations between Finite Element Simulations and Tests for Enhanced Structural Health Monitoring. *Proceedings of the Sixth European Workshop Structural Health Monitoring.
5. Bernad, C. (2012). Development of a multi-axis transport vibration test. *18th IAPRI World Packaging Conference*.
6. Miana, M., Cantín, O., Millán, C., Valdés, J.R., Bernad, C. (2011). Enhancement of the thermal design of bitumen emulsion tanks by Scale Analysis, CFD models and experimental tests. *Applied Energy*, 11/2011. <https://doi.org/10.1016/j.apenergy.2011.03.026>
7. Ainsa, I., González, D., Lizaranzu, M., Bernad, C. (2011). Experimental evaluation of uncertainty in hand-arm vibration measurements. *International Journal of Industrial Ergonomics*, 03/2011. <https://doi.org/10.1016/j.ergon.2011.01.002>
8. Bernad, C., Laspalas, A., González, D., Núñez, J.L., Buil, F. (2011). Transport vibration laboratory simulation: On the necessity of multiaxis testing. *Packaging Technology and Science*, 01/2011. <https://doi.org/10.1002/pts.913>
9. Bernad, C., Laspalas, A., González, D., Liarte, E., Jiménez, M.A. (2010). Dynamic study of stacked packaging units by operational modal analysis. *Packaging Technology and Science*, 2010. <https://doi.org/10.1002/pts.883>
10. Jiménez, M.A., Bielsa, J.M, Rodríguez, R., Bernad, C. (2007). Two FEM Approaches for the Prediction and Quantification of “Stick-Slip” Phenomena on Rubber-Metal Sliding Contacts. *IUTAM Symposium on Computational Methods in Contact Mechanics*. https://doi.org/10.1007/978-1-4020-6405-0_18

Granted Patents

- **Co-inventor:** *ES2320620B1 – Vibration damping device for basketball backboards*. Granted in 2009.
- **Co-inventor:** *P200603160 – Test device for aerodynamic noise in valves operating in subsonic range*. Filed in 2006.